

(PCT Article 36 and Rule 70)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2005/000268

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-10 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-9 _____ received by this Authority on 04.10.2005 with letter of 28.09.2005
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/1 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. II

Priority

1. ☐ This report has been established as if no priority had been claimed due to the failure to furnish within the prescribed time limit the requested:
- ☐ copy of the earlier application whose priority has been claimed (Rule 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 66.7(b)).
2. ☐ This report has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rule 64.1). Thus for the purposes of this report, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:
- Certain amendments have been made to the present application relative to the original French application. This concerns, in particular, the distance L, which did not appear in the original figure 1, and the references of figure 2.
- Consequently, the priority claimed is not valid for the subject matter of claim 2, which is based on the definition of distance L.

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>1-9</u>	YES
		Claims _____	NO
	Inventive step (IS)	Claims <u>1-9</u>	YES
		Claims _____	NO
	Industrial applicability (IA)	Claims <u>1-9</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
	Reference is made to the following documents:		
	D1: US-B1-6 498 588		
	D2: WO-A-00/70708		
1.	Novelty and inventive step		
1.1	Independent claim 1		
	D1, which is considered to be the prior art closest to the subject matter of claim 1, describes the preamble of claim 1.		
	<p>The electronic unit of claim 1 is disclosed implicitly in D1, since column 5, lines 38 to 46, mentions the possibility of putting amplifiers, adapter circuits, etc. directly onto the rear window so as to limit the number of cables coming out of the window. Obviously, these circuits will be incorporated in a unit.</p> <p>Furthermore, given the intention to reduce the number of cables, all the circuits will be incorporated in the same unit. At any event, these features cannot involve an inventive step even if the implicit disclosure of D1 is set aside, since D2 (pages 24 to 31 and figures 1 to 3) describes an electronic unit incorporating several</p>		

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	<p>amplifiers, etc. for a configuration close to that of D1.</p> <p>D1 also implicitly describes signal collector points connected to the electronic unit by means of connecting wires.</p> <p>Then, the subject matter of claim 1 differs from this known (or, ultimately, un inventive) antenna in that (see the characterising part of claim 1):</p> <ul style="list-style-type: none">(1) the vertical lines include two pairs of vertical lines arranged symmetrically relative to the vertical longitudinal median plane of the vehicle;(2) the aerial of the ANCILLARY antenna is the aerial of the AM antenna;(3) the signals provided by the FM1 and FM2 antennas are directional in the lengthways and widthways directions of the vehicle, respectively;(4) the exact feed of the FM1/FM2 antennas. <p>(1) For a person skilled in the art, combining the ANCILLARY antenna and the AM antenna would be routine design step. D1 already describes the FM/ANCILLARY combination and the fact of using a single aerial having a plurality of functions is very conventional.</p> <p>(2) D1 already discloses the fact of incorporating vertical lines so as to create a de-icing network (column 3, line 17). The immediate way of incorporating them would be in a symmetrical configuration. Furthermore, D1 suggests incorporating a plurality thereof (at least two). Incorporating two pairs therefore also comes within the scope of a routine</p>

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	<p>design step.</p> <p>(3) Finally, D1 also describes how to combine or select the signals from points Feed1 and Feed2 (Feed1, Feed2, Feed1+Feed2, Feed1-Feed2...) so as to diversify reception.</p> <p>Feeding the FM1/FM2 antennas via two collector points is not entirely clear from the new claim 1 (page 12, lines 12 to 19), see below. However, when the exact location of the connection between the screen-printed line 22 and the de-icing network 2 in figure 1 is taken into account to interpret claim 1, the feed to the FM1/FM2 antennas is neither described in, nor suggested by, the documents cited in the international search report.</p> <p>The subject matter of claim 1 is therefore novel and involves an inventive step (PCT Article 33(2) and (3)).</p> <p>1.2 Dependent claims 2 to 9</p> <p> The subject matter of dependent claims 2 to 9 is also novel and involves an inventive step (PCT Article 33(2) and (3)).</p> <p>2. Industrial applicability</p> <p> The invention relates to the technical details of a screen-printed antenna. It is therefore industrially applicable.</p>

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. Clarity and other observations

The application fails to comply with the requirements of PCT Article 6, as claim 1 is unclear.

1.1 Overall clarity

It is not clear from claim 1 (page 12, lines 12 to 15) if, how and where the screen-printed line is connected to the FM1/FM2 aerial (or the de-icing network). Since this feature is essential for the operation of the FM1 antenna, the claim is not clear.

1.2 Other observations

- D1 and D2 are not cited in the description - PCT Rule 5.1(a)(ii);
- Proper two-part drafting has not been observed (see above) - PCT Rule 6.3(b);
- The disclosure of the invention is not correct (pages 4 to 6) - PCT Rule 5.1(a)(iii).